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Development of e-Learning Microsoft Sway as Innovation of Local Culture-Based Learning Media

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E-Learning; Microsoft Sway; Media of Learning; Local Culture

Abstract

The research aims to know the produce e-learning Microsoft sway based on the local culture and the effectiveness of the implementation of media in accounting and economics learning at Universitas PGRI Madiun. This research was conducted in Accounting Education Study Program and Economic Education Study Program of Universitas PGRI Madiun, uses research and development method. It was started by preliminary study, then continued with media development stage. The media developed was tested in the two study programs. The trial test result was analyzed, then based on the analysis result, the media and instrument were improved. Media that has been improved to be final media then re-implemented in learning in the two study programs. The results of research show that the development of e-learning microsoft sway based on local culture and the effectiveness of media implementation in economic and accounting learning at Universitas PGRI Madiun run smoothly and effectively, and give positive impact on learning process.

How to Cite

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INTRODUCTION

Entering the 21st century today, the need and importance of computer technology are very necessary for the development and improvement of learning. According to Rusman (2012), the development of computer technology has contributed to the revolution in various fields, including education. Through utilizing technologies, the quality of human resources can be improved by opening widely to access to science and the provision of qualified education. Information and communication technology systems provide a wider, faster, more effective and efficient range of information dissemination to the world. The current information technology supports the practice of learning activities. Computer-based learning, web-based learning, computer-assisted learning, and audio-visual based learning are the form of computer technology that can be applied in economic and accounting learning.

According to Makagiansar (1996), in the 21st century the education system will experience a shift or change of paradigm, such as from illiteracy campaigns to blind-of technology, culture and computers campaigns. Furthermore, according to Surya (1998), one of the characteristics of education in the 21st century is the use of various science and technology innovations, especially electronic media, informatics and communication in various education activities.

In this 21st century, a lecturer needs to be more professional. Lecturers in the 21st century do not only act as teachers (transfer of knowledge) but rather to create democratic and challenging learning conditions by integrating the use of learning technology, especially information and communication technology that can be used in learning activities. The results of previous research indicating the importance of using media in learning show that there is 100% validated by the material experts and 96.67%, by the media experts; 81.49% comes from the users (students). So the average validation is 92.72%. This means that e-learning based learning is very appropriate for the accounting subject (Wardoyo, 2016).

The development of science and technology encourages the changes that occur in the life of the community, both socialization, perspective, habit, economic, social, cultural and even education levels. The science and technology influence a lot for the life of the community then the curriculum is used as a tool that can accommodate those changes. The development of science and technology can also be applied to the form of learning that is more innovative and creative, so that the learning outcome can be achieved. Research on the effectiveness of the use of technology-based learning media has been conducted by many researchers and the results are significant. The research conducted by Kholifah (2016) showed that the test of the effectiveness of media uses the right side of t test, obtained that the average learning result of the experimental class is 85,03 and the control class is 79,00. By analyzing using t test it found the value of $t_{table} < t_{count}$ that is 3.30> 1.997 then H_0 is rejected, so it can be concluded that learning by using media of learning video based on technology is better than the conventional learning in organizational behavior course.

Rianti, et al (2012) stated that students' learning results using internet and e-learning media are better than the conventional learning. Teaching by using internet media and e-learning can be used by the teachers as an alternative learning media. In addition, a study of e-learning focused on web-based learning (Blended Learning) is proved to be able to create the qualified active learning and influence on improving learning results. The advice given is to improve the students' independence, the teachers' innovation and creativity in today's learning variation and the school support for supporting facilities (Carolina, 2012).

According to Rusman (2010), thematic learning is one of the models in the integrated learning, which is a learning system that allows the students, both individual and active groups, to explore and find the concept and scientific principles holistically, meaningfully and authentically.

Brooks & Brooks believe that a cultural-based approach can provide the students the opportunity to create the meaning and to achieve a unified understanding of the scientific information they acquire, and also the application of such scientific information in the context of cultural community's problems (Sutarno, 2004). Advances in technology and information today require the lecturers to be able to adapt.

E-learning Microsoft Sway

Lecturers should continue to learn to develop learning media based on technology and information in order to present a learning that can be accessed by the students anytime, anywhere, and with any device. One of the technologies that teachers can utilize is developing e-learning Microsoft sway.

Sway can be accessed from various devices while connected to the internet. Sway-based online learning media developed is accessible to the

students through smartphones, tablets, or laptops / computers. Thus, learning can continue without limited by space and time. The ease of developing Sway-based online learning media can be a solution for the teachers who want to develop the media with a few easy stages.

Figure 1. Sway Combines Various Features

Figure 2. Sway Can Be Accessed from Various Devices

Sway-based online learning media can also be a solution to various student problems in the digital age today. Students' habits of accessing to online games and also other non-educational websites can be transferred to learning with the Sway-based online learning medium. Thus, the negative impacts of technology and information developments can be handled.

Sway can be developed by anyone connected to the internet. Stages to develop Sway-based online learning media begins by opening Sway website at the address https://sway.com/.

Figure 3. Website *Sway*

The next step is click "Start" button. If we already have a Sway account, just enter the email address used to enter Sway. If not having an account yet, we select the menu "Free List".

Figure 4. Entering *Sway*

The next step is to enter the desired email address and password to log in to the Sway website. We have to use email that is still active, because Sway will send the code to verify an ownership of our email. If you have entered your email address and password, then click "Next" button.

Figure 5. Making *Sway* Account

The next step is to enter the verification code sent to our email and press the "Next" button. Website Sway will open, as shown in the picture

Some of the features available on Sway are shown in Figure 7 and Figure 8. These features include: title, text, image, video, tweet, audio, embed, and also group.

The features available on Sway have names according to their functions. The title feature is used to write the title of Sway that will be developed. The title feature is equipped with a background feature that serves to add a background to the title. Text feature is used to write the content

or material in the form of text. We can also insert various media, images, videos, audio, tweets from Twitter, or any other media that we embed in Sway.

Figure 6. *Sway* Preview

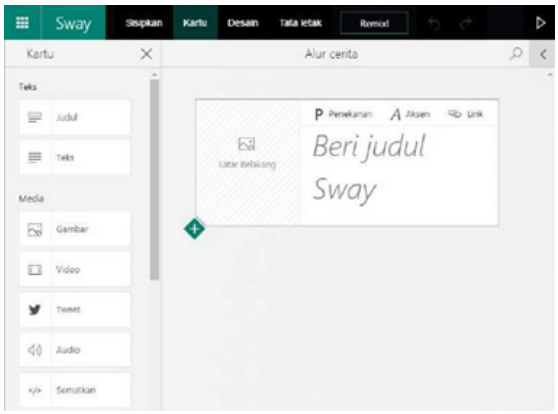

Figure 7. *Sway* Feature

Sway is also equipped with group feature. This feature allows us to present two or more images presented in a view with a group format or group of images. This group feature includes: automatic, stack, comparison, slide show, and grid.

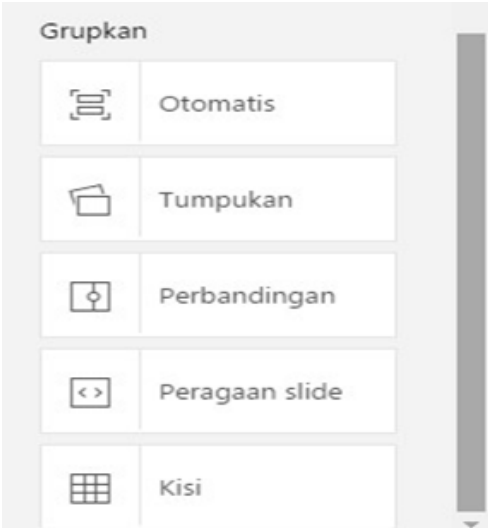

Figure 8. Group Feature on *Sway*

The application of this feature to the learning media is such as chemical changes on burned paper. The students will clearly observe and compare the paper images before and after being burnt.

We can insert various media in the form of images from various websites of free image providers, such as Flickr, Bing, and Pickit. We can also insert relevant learning videos from Youtube or from our own computer devices as shown in Figure 9.

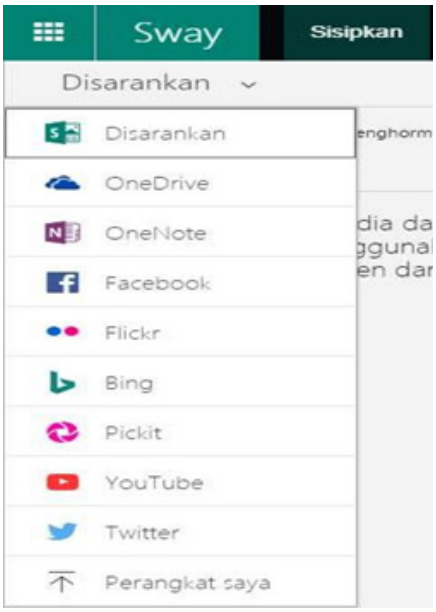

Figure 9. Media Feature on *Sway*

The final step after developing the Sway-based online learning media is to distribute the media. We can share the media we have developed by giving the Sway link or address to the students. Sway based-online learning media that we develop can be accessed by the students through HP (smartphone), tablet, or computer. Link or Sway address shared is as shown in Figure 10.

Local Culture-Based Learning

Sardjiyo & Pannen (2005) stated that culture-based learning is a strategy for creating learning environments and designing learning experiences that integrate culture as part of the learning process. Cultural-based learning is based on the recognition of culture as a fundamental (fundamental and important) part of education as an expression and communication of an idea and the development of knowledge.

Cultural-based learning enables the students not only to imitate and accept the information conveyed but also to create the meaning, understanding, and to develop the knowledge

gained. Cultural-based learning process does not only transfer culture and cultural manifestation but also uses culture to enable the students to create the meaning, to penetrate the limits of imagination, and to be creative in achieving a deep understanding of the subjects studied.

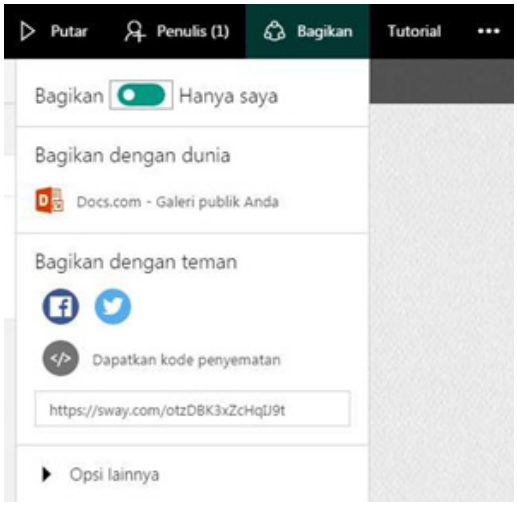

Figure 10. Sharing Feature on *Sway*

There are four things to consider in a culture-based learning as follows:

a. Substance and competence of the study

Cultural-based learning emphasizes the achievement of integrated comprehension rather than inert understanding. Comprehensive understanding enables the students to act independently based on the scientific principles to solve the problems they face in the context of the cultural community and to encourage them to creatively continue to seek and find ideas based on scientific concepts and principles.

b. Meaningfulness and learning process

Activities in cultural-based learning are not only designed to activate the students but also created to facilitate the social interaction and meaning negotiations until meaningfulness occurs. The process of creating meaning through the process of cultural-based learning has several components in the following: meaningful task, active interaction, explanation and application of science in contextual and utilization of various sources of learning.

c. Assessment of learning results

The concept of assessment of learning results in cultural-based learning is a multiple representation. For example: designing a project in a learning activity will stimulate the imagination and creativity of students (Weiner, 2003). One of the ways used to create projects is by pouring the phenomena they encounter in real life and the events they experience that are in accordance with the learning activities. This activity makes the students actively learn about how to conduct cultural studies. An important aspect of the project is to present a project that has been made and other students respond to the project / media presented. In this case, the assessment is conducted jointly that is from the student himself, other students, and the lecturer based on some criteria determined by the lecturer.

d. The role of culture

Culture becomes a method for the students to transform observation results into creative forms and principles about the disciplines. Culture in various manifestations can instrumentally serve as a medium of learning in the learning process. As a medium of learning, culture and diverse manifestations can be the context of examples of concepts or principles in a subject and the context of the application of principles in a subject.

The four components interact so that they have implications in cultural-based learning, among others (Wahyudi, 2003): (a) Teacher, in which the teacher is required to have the ability to explore all relevant information about the local culture on the material to be discussed. The teacher plays a role in guiding and directing the students' potential to explore the various cultures already known and also to develop the culture; (b) Students, in which the culture-based learning emphasizes the achievement of an integrated understanding rather than an inert understanding. Integrated understanding as a result of cultural-based learning creates a meaningfulness by the students to a substance of matter and context. Students in learning activities are always brought into real contexts that contain cultural elements, so that in the process of concept construction, they are able to perform these activities with more meaningful. Knowledge and experience of discovery process and problem solving process in the disciplines, honing the students' ability in formulating problems and hypotheses, designing experiments and research, and producing reliable solutions. In addition, they have skills to apply knowledge in the physics and other knowledge to solve problems in a broader context that is cultural, national, and regional communities; (c) The main learning resources that can be used in cultural-based learning can be in the form of a written text such as a science learning book, cultural evidence, a cultural resource, or an environment such as the natural environment and everyday social environment.

Goldberg (2000) distinguishes cultural-

based learning into three kinds: (a) Learning about culture (placing culture as a science). Culture is studied in a special subject and is not integrated with other subjects. However, many schools do not have adequate learning resources so that the subjects become memorizing lessons from books or teacher stories that are uncertain; (b) Learning with culture. Learning with culture occurs when culture is introduced to the students as a way or method for learning a particular subject. Learning with culture makes the culture and its embodiment a learning media in the learning process, the context of examples of concepts or principles in the subject, and also the context of applying principles or procedures in a subject; (c) Learning through culture. Learning through culture is a method that provides an opportunity for the students to demonstrate the attainment of the understanding or meaning it creates in a subject through a variety of cultural manifestations.

Things to consider during the learning process with the learning model based on local culture are in the following: (a) Giving opportunities to the students to express their thoughts, to accommodate their concepts or beliefs rooted in traditional science; (b) Presenting to the students examples of anomalies or miracles that are actually commonplace according to raw concepts; (c) Encouraging the students to actively ask questions; (d) Encouraging the students to create a series of schemes on concepts developed during the learning process.

The stages that a lecturer should take to develop a local cultural-based learning model are as follows: (a) Identifying initial knowledge of students. Identification of initial knowledge of the students aims to explore their thoughts in order to accommodate their conceptions, principles or beliefs rooted in the culture of the community in which they are located. Ausubel stated that one important thing a lecturer should do before teaching is to know what the students have already known; (b) Learning in groups. Traditional societies tend to engage in voluntary and informal group activities. Learning in the form of groups is a return to their indigenous learning traits; (c) The lecturer acts as an intelligent and wise negotiator. The role of lecturer as a cultural negotiator is: (1) to give the students opportunities to express their thoughts, to accommodate the concepts and beliefs of students who are rooted in (culture), (2) to present the students of the oddities that are actually common according to Western science, (3) to encourage the students to identify the cultural limit, (4) to encourgae the students to actively ask questions, (5) to motivate the students to be aware of the positive and negative effects of Western science on technology.

METHODS

This research uses the method of research and development as proposed by Borg and Gall (1989). According to Borg and Gall in the research implementation, there are ten stages to be taken. Research and development of products, equipment and models depend on a variety of qualitative techniques, including case studies, interviews, document reviews, and observations (Emzir, 2011).

This research modifies ten stages of Borg and Gall research into three stages as follows: 1) preliminary study, including literature studies, field studies and local culture analysis. 2) media development stage, covering making initial media, media trials, analyzing test results, improving media to final media. 3) Media validation stage, covering the implementation of media in learning and tested media.

This research was conducted in Accounting Education Study Program and Economic Education Study Program by testing sway Microsoft e-learning based on local culture in accounting and economics learning in University PGRI Madiun.

The procedure of research and development in this research can be explained as Figure 11 as follows

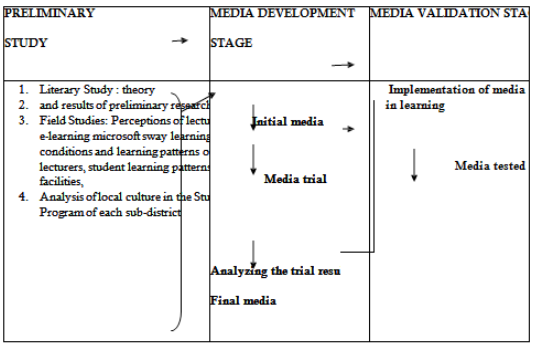

Figure 11. Procedure of Research and Development

Data collection techniques in this research are conducted by observing the activities of lecturers and students, evaluation tests, questionnaires of students' and lecturer's responds, and documentation.

RESULT AND DISCUSSION

This research is carried out with stages including permission stage, requirement analysis stage, product development stage, product trial stage, product improvement phase, and ending with implementation stage. This research is still at the stage of product development. At the permission stage the researcher conducts the licensing process starting from the Rector, the Dean of FKIP is known by the Chairman of LPPM. Then the researcher continues to ask for the study permit to Accounting Education Study Program and Economic Education Study Program.

Requirement analysis stage includes analyzing the required literature and references, designing learning tools, analyzing local culture in Accounting Education Study Program and Economic Education Study Program. Furthermore, researchers designed the development of microsway e-learning based on local culture of accounting learning and economic learning, designing instruments and designing e-learning learning Microsoft sway based on local culture.

At the stage of product development, the researchers do as follows: composing learning devices of e-learning Microsoft sway based on local culture of accounting and economics learning. Learning devices made are RPS and SAP. Researchers start by compiling KI and KD from the theme of Microsoft sway e-learning. The material on e-learning Microsoft sway in Accounting Education and Economic Education Study Program. Next Researcher analyzes the local cultural-based learning in Accounting Education Study Program and Economic Education Studies Program of Uniersitas PGRI Madiun.

The researcher develops Microsoft sway e-learning module based on the local culture of accounting learning and economics learning, develops learning media of Microsoft sway e-learning based on local culture of accounting learning and economic learning, and organizes the students' activity sheet instrument used to guide them in learning activities from the beginning until the end. Lecturer's activity sheet in the learning is used to observe the implementation and management of learning conducted by the researcher. Furthermore, the researchers compiled a questionnaire evaluation test used to measure the students' cognitive abilities after having the learning, compiling a lecturer's response questionnaire and a student response questionnaire. The learning is conducted in the learning media courses.

Respondents in this research are 75 Students of Accounting Education and Economics Education who follow the course of learning media. It consists of 35 students of Accounting Education and 40 students of Economics Education. In the learning activities, the lecturer plays a role in facilitating learning through e-learning Microsoft sway learning media.

The application of micro-sway e-learning media based on local culture in the learning process has a positive impact on the learning activities. Students look more enthusiastic in using the e-learning Microsoft sway learning media based on local culture. They also look creative in achieving a deep understanding of the subjects studied, and are insightful. The e-learning Microsoft sway learning media based on local culture will create a culture for students to develop meaningful knowledge that will be applied in everyday life.

CONCLUSION

This research runs on product development stage with the following conclusion: 1) Obtained learning device of Microsoft sway e-learning based on local culture of accounting learning and economic learning, 2) Obtained by learning media of Microsoft sway e-learning based on local culture learning accounting and economic learning

Based on the conclusion, it is suggested that it is necessary to improve the development of instructional media for each other study program by raising the local culture of each study program so that learning can be meaningful.

REFERENCES

Carolina. (2012). Penerapan Strategi Active Learning Berbasis Web (Blended Learning) Dalam Upaya Menciptakan Pembelajaran Aktif Dan Pengaruhnya Terhadap Hasil Belajar. *Economic Education Analysis Journal*, 1(2).

Kholifah, S. (2017). The development of learning video media based on swishmax and screencast o-matic softwares through the contextual approach. *Dinamika Pendidikan*, 11(1), 67-74.

Khumaidi, K., & Tarmudji, T. (2014). Pengaruh Kecerdasan Intelektual (Iq), Cara Belajar, Dan Kreativitas Guru Dalam Pembelajaran Terhadap Prestasi Belajar Ekonomi Siswa Kelas Xi Ips Di Sma Negeri 1 Bangsri Kabupaten Jepara. *Economic Education Analysis Journal*, 3(2).

Maisaroh, S. (2016). Upaya Peningkatkan Motivasi Dan Prestasi Belajar Ips Melalui Model Pembelajaran Kooperatif Tipe Teams Games Tournament. *Dinamika Pendidikan*, 6(2), 150-169.

Mulkhan, A. (2002). *Pendidikan Liberal.* Yogyakarta: Kreasi Wacana.

Nugroho, R. (2008). *Pendidikan Indonesia.* Yogyakarta:

Pustaka Pelajar.

Sesarianti, Marimin, & Partono, T. (2012). Penggunaan Internet Dan E-Learning Sebagai Media Pembelajaran Untuk Meningkatkan Hasil Belajar Siswa Pada Kompetensi Dasar Melakukan Pertemuan / Rapat Kelas X Jurusan Administrasi Perkantoran Di SMK YPPM Boja Kabupaten Kendal. *Economic Education Analysis Journal*, 1(2).

Setiaji, K. (2015). Pilihan Karir Mengajar Mahasiswa Pendidikan Ekonomi (Kajian Motivasi Karir Mengajar, Career Self Efficacy, Status Sosial Ekonomi, Minat menjadi Guru Terhadap Prestasi Akademik). *Dinamika Pendidikan*, 10(2), 196-211.

Slameto. (2003). *Belajar Dan Faktor-Faktor Yang Mempengaruhinya*. Jakarta: Rineka Citra.

Sumaatmadja, N. (2002). *Pendidikan Pemanusiaan Manusia Manusiawi.* Bandung: Alfabeta.

Tim Penyusun Kamus. *Kamus Besar Bahasa Indonesia Pusat Pembinaan Dan Pengembangan Bahasa.* Depdikbud: Balai Pustaka.

Undang-undang nomor 2 tahun 1989. *Tentang Sistem Pendidikan Nasional.* Semarang: Aneka Ilmu.

Usman, A. (2006). *Kebebasan dalam Perbincangan Filsafat, Pendidikan*. Yogyakarta: Nuansa Aksara.

Utami, H. W. (2014). Efektivitas Pembelajaran Kooperatif Model Think-Pair-Square Berbantuan Video Pembelajaran Dalam Meningkatan Kreativitas Siswa Pada Kompetensi Dasar Laporan Keuangan. *Economic Education Analysis Journal*, 2(3).

Wardoyo, C. (2017). Developing the Learning Media Based on E-Learning at Accounting Subject for Senior High School. *Dinamika Pendidikan*, 11(2).

Winarti, W. (2013). Peningkatan Keaktifan Dan Hasil Belajar Siswa Pokok Bahasan Penyusutan Aktiva Tetap Dengan Metode Menjodohkan Kotak. *Dinamika Pendidikan*, 8(2).

Yamin. (2009). *Manajemen Mutu Kurikulum Pendidikan.* Jogjakarta: Diva Press.